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(54) **PRINTABLE ELECTRONIC DISPLAY**

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349/41; 349/86; 349/89

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41

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(57) **ABSTRACT**

A display system includes a substrate upon which the
display system is fabricated; a printable electrooptic display
material, such as a microencapsulated electrophoretic sus-
pension; electrodes (typically based on a transparent, con-
ductive ink) arranged in an intersecting pattern to allow
specific elements or regions of the display material to be
addressed; insulating layers, as necessary, deposited by
printing; and an array of nonlinear elements that facilitate
matrix addressing. The nonlinear devices may include
printed, particulate Schottky diodes, particulate PN diodes,
particulate varistor material, silicon films formed by chemi-
cal reduction, or polymer semiconductor films. All elements
of the display system may be deposited using a printing
process.

5 Claims, 14 Drawing Sheets

